Permit No.: IDG-131003

ANNUAL REPORT OF OPERATIONS FOR YEAR 2012 Idaho Aquaculture Permit

I. Facility Name: Dworshak National Fish Hatchery NPDES # IDG131003

Operator Name (*Permittee*): US Fish and Wildlife Service
276 Dworshak Complex Road Ahsahka, ID 83520 Phone: 208-476-4591
Fax: 208-476-3252 E-Mail: mark_drobish@fws.gov
Owner Name: U.S. Army Corps of Engineers Phone: 509-527-7121

II. Annual Production: *Harvestable weight produced in the year 421,640* pounds.

III. Food Used: *Number of pounds of food fed to the fish during the maximum month:* 71,425 pounds

IV. Noncompliance Summary:

Include description & dates of noncompliance, the reasons for such incident, and the steps taken to correct the problem. Attach additional pages, if necessary.

-The Federal Facilities Compliance Agreement was finalized with the EPA by the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the Nez Perce Tribe. The proposed renovations, although based on funding, will improve wastewater treatment.

V. Best Management Practices (BMP) Plan

BMP Plan has been reviewed this year. • **Yes**
BMP Plan fulfills the requirements set forth in the permit: • ***Yes***

Summarize changes in the BMP Plan since last annual report: Improved cleaning protocols and operation of a modified wastewater treatment systems have been incorporated into the current 2013 BMP. Increased rearing densities, flow increases to all rearing units, and stopping the direct discharge of waste to System III units have resulted in changes to BMP. The US Army Corps of Engineers have formed a rehabilitation team charged with renovating the facility to meet the current NPDES permit. FWS continues to review and modify fish culture, cleaning operations, and investigate our wastewater treatment and discharge options thus our BMP is a living document. Edits are made as BEST practices change to address the 2008 NOV.

VI. Land application of solids and/or irrigation with wastewater

Attach Maps of Application Sites. (Note: IDAPA 58.01.02.650 requires IDEQ approval for solids disposal on land.)

Date Location Acreage of Application Solids Applied Cubic Yards or Pounds

Wastewater Applied in Gallons - **Not Applicable**

Yearly Total 0 cubic yards/pounds

VII. Offline Settling Basin Discharge Frequency (generally)

24 hours/day 7 days/wk 12 months/year

MK 1/16/13

VIII. Chemical Usage (including pesticides and drugs)

Chemical	Date or # of days used	**Maximum concentration in effluent (actual or estimated)**
		Concentrations are prior to mixing with total hatchery flow to respective discharge pipes:
Formalin	Prophylactic - Incubation Drip 82 days/yr	Maximum of 116 stacks (1667 ppm) @ 5gpm for 15 min drip- (304 gallons total/yr)
Formalin	Prophylactic Adult Holding 20 days/yr	Maximum of 3 ponds (167 ppm) 45 gal/1 hr (505 gallons total/yr)
Formalin	Bath 7 days/yr	Maximum of 15 ponds 167 ppm 45 gal/1 hr for parasites (135 gallons total/yr)
	Static Bath 102 days	Maximum of 4 kelt tanks @ 170 ppm discharged to settling pond.(208 gallons/yr-Nez Perce Tribe)
AquaShade96	82 days/yr	15-25ppm diluted in formalin 1667ppm and water at 3-4 gpm – Estimated undetectable in discharge (0)
Chlorine	1 days/yr	110 gallons (1 day) disinfect reuse system and circulated in clarifiers/Sys I sump and in burrows ponds est. no discharge/no flow.
Sodium Thiosulfate	Approx1 days (used to neutralize chlorine in System I reuse cleaning)	Water treated to pH 7 then flows to rearing units, recirculated for 1 day, discharged to clarifier (expect 0 discharge)
Chloramine T	3 consecutive days to treat for cold water disease	15 mg/l, 1 hr bath, 2.5 lbs/1hr each of 5 coho raceways per day (37.5 lbs total). Discharge water sent to biofilter basin.
Virkon	Used est. 365 days/yr	0 discharge to river used as a spray on to disinfect nets, brushes, pond scrubber, foot baths, waders (Max 5,000 ppm)
Sodium Chloride	17 days/yr	Maximum of 600 lbs/day of salt used as treatment for stress reduction and parasites as bath treatments (~0.5% soln).
Sodium Bicarbonate	6 days/yr	Used as a buffer for carbon dioxide anesthetic in adult fish handling. Max 20lbs per day; estimate it is undetected in

		discharge due to dilution
Florfenicol Aquaflor (feed)	10 days 14 days	420 pounds of medicated feed was used at at 100g/kg active ingredient (approx. 24 lbs total) Estimate 0 discharged as is ingested by fish or swept to biofilter as waste.
Oxygen		1.5 L/min 150 ppm estimate no detection in effluent (est. 3480 min)
Ovadine (Iodophor disinfection bath)	32 days/yr	100 mg/L per female (max 467 females/day) And used at 200 ppm (bath) to disinfect equipment (100 % discharge to river); Used as a spray on to disinfect 126 nursery tanks. Discharged to clarifiers (system I)
Ovaplant (sGnRha)	1 days/year; fish generally spawn or are culled within 3 weeks of injection.	Max 5400 µ used in one day. Estimate 0 effluent discharged to river; carcasses taken to transfer station.
Erythromycin (feed)	44 days/yr	Approximately 11,565 pounds of medicated feed was used (approx. 49kg active); discharged to settling basin and carcasses taken to transfer station for disposal.
Erythromycin (injection)	3 days/yr	576 ml injected; Estimate no detection in effluent discharged to river and carcasses taken to transfer station for disposal.
MS-222	10 days/yr	Estimate 100 ppm (800 gal vats) discharge to river
CO_2	6 days/yr (16 hrs)	Estimate max 1,000 ppm (800 gal vats) 100 % discharge to river
Propoly Aqua	17 days/yr	500ml/day @ 130 ppm Estimate 100% discharge to river diluted in 800 gal vats

Chemical Logs available upon request (attached to file copy).

IX. Fish Importation, Transport, and Release Permits

Number of permits issued by Idaho Department of Fish and Game during the year: 2 **For which species?** Fall Chinook Salmon (Idaho Fishery Resource Office); Steelhead Kelts (Nez Perce Tribe)

X. Inspections and Repairs for production and wastewater treatment systems

Date Inspected	Date Repaired	Description of system inspected and/or repaired
08-16-2007	Issue is not resolved-towers are no longer used.	Bead media released from System I degassing towers.
Continued from 2008	January 2012	OSHA required after ARC Flash study on boiler and control panels
Continued from 2009	FFCA completed in 2011; renovation pending funds	Old reuse system abandoned. System II biofilters used for wastewater treatment.
	September 2012; EPA inspection October 2012	Discharge pipe modification allows System III cleaning water to be treated.
August 27, 2012	November 30, 2012	Reservoir water intake structure at face of Dworshak Dam repaired.
September 26, 2011	November 2, 2012	Completed media removal of System II Bio-filters
Daily/Monthly (in use)	Daily/monthly rounds	Visual inspections: water intake, rearing units, screens, weirs, automatic feeders, chemical storage units, water flow, settling basins.
Annually (prior to use)	As scheduled	Preventative maintenance: Pumps, boilers, aeration chambers, digesters, settling ponds.

XI. Signature & Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure the qualified personnel properly gather and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature: *Title/Company:* Acting Manager
Dworshak Fisheries Complex

Print Name: Mark Drobish ***Date:*** 1/11/13